

SUMMARY

WindBot coaching kits include Bluetooth 3.0 functionality. This is used to transmit True Wind measurements from a WindBot pole, to a supplied e-ink display.

Field testing of WindBot coaching equipment has demonstrated that;

The practical maximum range that a reliable Bluetooth connection can be maintained between a WindBot pole, and e-ink display is 70 m.

BACKGROUND

Bluetooth 3.0 is designed for short range communication up to a maximum distance 100 m, and with a maximum transmit power of 100 mW. Real world performance in real devices can vary greatly, depending on many other factors such as antenna design. Therefore, it is always necessary to perform empirical tests of range to determine practical limits.

WindBot devices are designed to enable reliable communications in a personal bubble on a coach RIB. Further, when when connected to a local display they will not allow additional connections to be made to any other devices. However, it is still possible to establish a short link over water should the local e-ink display be disabled.

Igtimi have carried out range tests to determine how far from a coach boat a supplied e-ink display can maintain a data connection, given a range of orientations of the equipment in a real-world situation. This testing showed that reliable connections could not be maintained over 70 m, and 30m is the recommended maximum range that any WindBot coaching kit should be expected to operate at.

Kind regards,


X

Brent Rusell
CTO